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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,194	03/19/2004	Hirotooshi Terada	046124-5282	6505
55694 7590 09/04/2007 DRINKER BIDDLE & REATH (DC) 1500 K STREET, N.W. SUITE 1100 WASHINGTON, DC 20005-1209			EXAMINER GREECE, JAMES R	
			ART UNIT 2873	PAPER NUMBER
			MAIL DATE 09/04/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/804,194

Applicant(s)

TERADA ET AL.

Examiner

James R. Greece

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/19/2004 & 7/30/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date See Continuation Sheet.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date : 7/27/2007,  
6/20/2006, 9/12/2005, 9/9/2004.

***Detailed Action***

Applicant cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Status of the Application***

Claims 1-10 are pending in this application

If the applicant is aware of any prior art or any other co-pending application not already of record, he/she is reminded of his/her duty under 37 CFR 1.56 to disclose the same.

***Drawings***

There are no objections to the applicant's drawings at this time.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Brenhardt (USPAT 2,809,554).

In regard to claim 1, Brenhardt teaches:

An attaching surface to the observed object is formed in a toroidal shape (See figure 1, examiner interpret attaching surface as lens surface)

In regard to claim 2, Brenhardt teaches:

When a to-be-attached surface of the observed object is set to an X-Y plane, a ratio of a radius of curvature in the X-direction of the toroidal shape to a radius of curvature in the Y-

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direction greater than the radius of curvature in the X-direction is provided as 1:3 ~ 1:infinity (see col. 1, lines 69-72 and col. 2 lines 1-2 discloses that the toroidal sections radii of curvature can be fitted to create divergent expansion of every desired degree. This set includes the applicant's range)

In regard to claim 3, Brenhardt teaches:

An attaching surface to the observed object is formed in a cylindrical shape (see figure 1 which discloses such a lens design whose bottom section is formed as a cylinder below the curved part of the outer section)

In regard to claim 9, Brenhardt teaches:

An optical system for leading an image of the observed object, including an objective lens into which light from the observed object is made incident; and the solid immersion lens as set forth in Claim 1 (col. 6, line 2)

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brenhardt (USPAT 2,809,554).

In regard to claim 4, Brenhardt does not explicitly disclose the use of a hydrophilic treatment.

However the examiner takes official notice to the fact that the use of hydrophilic coatings is well known in the art of designing any device with sensitive parts and contact with water. One would be motivated to utilize a hydrophilic coating on the outside of a lens or object in contact with water for the predictable result of preventing condensation within the internal optics/electronics of the designer's device. A reference that supports this predictable result and notice is Ouchi et al (USPAT 4,497,550).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brenhardt (USPAT 2,809,554).

In regard to claim 10, Brenhardt does not explicitly disclose the use of an optical coupling material feeding unit for feeding an optical coupling material.

However the examiner takes official notice to the fact that the use of an optical coupling material feeding unit for feeding an optical coupling material is well known in the art of microscope design. As the applicant does not explicitly disclose the feeding unit or the material used the examiner is interpreting the claim reasonably to include a dropper filled with liquid discharged by the microscope operator's hands. This provides the predictable result of the microscope operator having control over the amount of coupling material discharged.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 1 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 1, the phrase "an attaching surface to the observed object" is not sufficiently disclosed in the claim such that a distinct or particular interpretation can be assigned to the limitation. The term "an attaching surface to the observed object" is not explicitly disclosed in the claim, therefor leaving the term open to multiple and conflicting interpretations. It is not clear whether the attaching surface is part of the lens, the object examined, or another object.

In regard to claim 10, the phrase "optical coupling material feeding unit" is not sufficiently disclosed in the claim such that a distinct or particular interpretation can be assigned to the limitation. The term "optical coupling material feeding unit" is not explicitly disclosed in the claim, therefor leaving the term open to multiple and conflicting interpretations.

#### *Claim Objections*

8. Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art taken singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

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Specifically in regard to independent claim 5, the combination of all of the specific limitations as disclosed in claim 5 and claim 1 is necessary in order to make the claim allowable. Specifically the combination of structural and conditional limitations as disclosed in the claim is unique in the art. This is contingent upon successfully overcoming the 112 second paragraph rejection of claim 1.

***Cited Prior Art***

The following prior art is cited because of its similarity to the applicant's device.

Pakdaman et al.      US PUB 2003/0202255

Baumann      US PAT 4,634,234

Pakdaman et al.      US PAT 6,594,086

Pakdaman et al.      US PAT 6,778,327

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Greece whose telephone number is 571-272-3711. The examiner can normally be reached on M-Th 7:30-6.

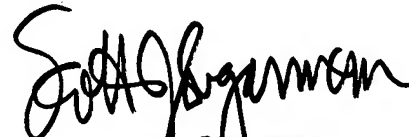
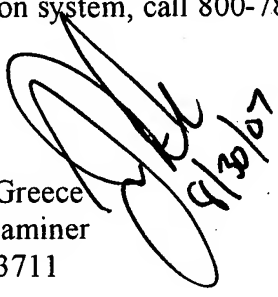
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James R. Greece  
Patent Examiner  
571-272-3711



Scott J. Sugarman  
Primary Examiner